

REMARKS

This Amendment cancels claims 1-13, and adds new claims 14-38. New claims 14-25 define a ligand binding bioaffinity assay, claims 26-27 define a nanoparticle, and claim 38 defines a kit for a ligand binding immunoassay. New claim 14 is supported by page 5, lines 13-17, page 9, line 25 to page 10, lines 2, Fig. 2 and original claim 12. The "genetically fused" binding moiety feature of claims 14, 19, 26 and 31 is supported by Examples 1 and 8-11. The recombinant Dpr/Dps protein particle feature of claims 14 and 26 is supported by page 5, lines 8-12 and page 1, line 19 to page 2, line 2 of the specification. Claim 15 is supported at page 1, line 19 to page 2, line 2. The term "marker" in claim 26, subparagraph b) i) and b) ii), has been defined by the Markush group of original claim 2. Claim 27 is supported at page 11, lines 17-18. Claim 28 is supported at page 7, lines 8-11. Claims 14-38 are pending.

This Amendment overcomes the 35 U.S.C. § 112, second paragraph, rejection of claims 10 and 12. These claims have been canceled. New claims 24 and 36, which correspond to canceled claim 10, do not recite "minimum". One of ordinary skill in the art would understand these claims to refer to the radius of the

nanoparticle per se, in view of the plain language of these claims. Reconsideration and withdrawal of the indefiniteness rejection of claims 10 and 12 are earnestly requested.

This Amendment overcomes the 35 U.S.C. § 101 rejection of claim 12. This claim has been canceled. Reconsideration and withdrawal of the non-statutory subject matter rejection of claim 12 are earnestly requested.

The 35 U.S.C. § 102(b) rejection of claims 1, 2, 11 and 13 over U.S. Patent No. 4,959,306 to Kameda et al. is traversed. These claims have been canceled in favor of nanoparticle claims 26-37 and kit claim 38, which specify the claimed nanoparticle is a recombinant apoferritin particle or a recombinant Dpr/Dps protein particle.

Kameda et al. fails to disclose a recombinant apoferritin particle or a recombinant Dpr/Dps protein particle. Reconsideration and withdrawal of the anticipation rejection of claims 1, 2, 11 and 13 over Kameda et al. are respectfully requested.

The 35 U.S.C. § 103(a) rejection of claims 3 and 4 over Kameda et al. in view of U.S. Patent No. 6,713,274 to Bertozzi et al.¹ is traversed. As discussed above, the claimed nanoparticle is a recombinant apoferritin particle or a recombinant Dpr/Dps protein particle.

The cited combination of references fails to raise a prima facie case of obviousness against the claimed nanoparticle because neither reference discloses or suggests a recombinant apoferritin particle or a recombinant Dpr/Dps protein particle. Reconsideration and withdrawal of the obviousness rejection of claims 3 and 4 are respectfully requested.

The 35 U.S.C. § 103(a) rejection of claim 5 over Kameda et al. in view of Published U.S. Patent Application 2003/0124586 to Griffiths et al.² is traversed. The claimed nanoparticle is a

¹Bertozzi et al. is not listed on the Notice of References Cited, and was not earlier made of record in this application. The Patent Office is requested to list Bertozzi et al. in the next Patent Office communication to ensure this reference is made of record.

²Griffiths '586 is not listed on the Notice of References Cited, although its divisional application, U.S. 2005/0042648 is listed. The Patent Office is requested to list Griffiths '586 in the next Patent Office communication to ensure this reference is made of record.

recombinant apoferritin particle or a recombinant Dpr/Dps protein particle.

The cited combination of references fails to raise a prima facie case of obviousness against the claimed nanoparticle because neither reference discloses or suggests a recombinant apoferritin particle or a recombinant Dpr/Dps protein particle. Reconsideration and withdrawal of the obviousness rejection of claim 5 are respectfully requested.

The 35 U.S.C. § 103(a) rejection of claim 6 over Kameda et al. in view of U.S. Patent No. 6,599,331 to Chandler et al. is traversed. The claimed nanoparticle is a recombinant apoferritin particle or a recombinant Dpr/Dps protein particle.

The cited combination of references fails to raise a prima facie case of obviousness against the claimed nanoparticle because neither reference discloses or suggests a recombinant apoferritin particle or a recombinant Dpr/Dps protein particle. Reconsideration and withdrawal of the obviousness rejection of claim 6 are respectfully requested.

The 35 U.S.C. § 103(a) rejection of claims 7, 9 and 10 over Kameda et al. in view of U.S. Patent 6,537,760 to Bergmann et al.

is traversed. The claimed nanoparticle is a recombinant apoferritin particle or a recombinant Dpr/Dps protein particle.

The cited combination of references fails to raise a prima facie case of obviousness against the claimed nanoparticle because neither reference discloses or suggests a recombinant apoferritin particle or a recombinant Dpr/Dps protein particle. Reconsideration and withdrawal of the obviousness rejection of claims 7, 9 and 10 are respectfully requested.

The 35 U.S.C. § 103(a) rejection of claim 8 over Kameda et al. in view of Published U.S. Patent Application US 2003/0077578 to Oon et al. is traversed. The claimed nanoparticle is a recombinant apoferritin particle or a recombinant Dpr/Dps protein particle.

The cited combination of references fails to raise a prima facie case of obviousness against the claimed nanoparticle because neither reference discloses or suggests a recombinant apoferritin particle or a recombinant Dpr/Dps protein particle. Reconsideration and withdrawal of the obviousness rejection of claim 8 are respectfully requested.

It is believed this application is in condition for allowance. Reconsideration and withdrawal of all rejections of claims 1-13, and issuance of a Notice of Allowance directed to claims 14-38, are

earnestly requested. The Examiner is urged to telephone the undersigned should she believe any further action is required for allowance.

A Petition and fee for a one month Extension of Time are attached. It is not believed any additional fee is required for entry and consideration of this Amendment. Nevertheless, the Commissioner is authorized to charge Deposit Account No. 50-1258 in the amount of any such required fee.

Respectfully submitted,

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Enclosure:
Petition for Extension of Time